

Datasheet for ABIN3112935  
**CD13 Protein (AA 2-967) (rho-1D4 tag)**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	1 mg
Target:	CD13 (ANPEP)
Protein Characteristics:	AA 2-967
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CD13 protein is labelled with rho-1D4 tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

## Product Details

Sequence:	AKGFYISKSL GILGILLGVA AVCTIIALSV VYSQEKKNKA NSSPVASTTP SASATTNPAS ATTLDQSKAW NRYRLPNTLK PDSYRVTLRP YLTPNDRGLY VFKGSSTVRF TCKEATDVII IHSKKLNYTL SQGHRVVLRG VGGSQPPDID KTELVEPTEY LVVHLKGSLV KDSQYEMDSE FEGELADDLA GFYRSEYMEG NVRKVVATTQ MQAADARKSF PCFDEPAMKA EFNITLIHPK DLTALSNMLP KGPSTPLPED PNWNVTEFHT TPKMSTYLLA FIVSEFDYVE KQASNGVLIR IWARPSAIAA GHGDYALNVT GPILNFFAGH YDTPYPLPKS DQIGLPDFNA GAMENWGLVT YRENSLLFDP LSSSSSNKER VVTVIAHELA HQWFGNLVTI EWWNDLWLNE GFASYVEYLG ADYAEPTWNL KDLMLVNDVY RVMAVDALAS SHPLSTPASE INTPAQISEL FDAISYSKGA SVLRMLSSFL SEDVFKQGLA SYLHTFAYQN TIYLNLDHDL QEAVNNRSIQ LPTTVRDMN RWTLQMGPV ITVDTSTGTL SQEHFLDPD SNVTRPSEFN YVWIVPITSI RDGRQQQDYW LIDVRAQNDL FSTSGNEWVL LNLNVTGYR VNYDEENWRK IQTQLQRDHS AIPVINRAQI INDAFNLASA HKVPVTLALN NTLFLIEERQ YMPWEAALSS LSYFKLMFDR SEVYGPMKNY
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LKKQVTPLFI HFRNNTNNWR EIPENLMDQY SEVNAISTAC SNGVPECEEM VSGLFKQWME  
NPNNNPIHPN LRSTVYCNAI AQQGEEEWDF AWEQFRNATL VNEADKLRAA LACSKELWIL  
NRYLSYTLNP DLIRKQDATS TIISITNNVI GQGLVWDFVQ SNWKKLFNDY GGGSFSSNL  
IQAVTRRFST EYELQQLEQF KKDNEETGFG SGTRALEQAL EKTKANIKWV KENKEVVLQW  
FTENSK

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human ANPEP Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protParam tool to determine the absorption coefficient of each protein.

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### Purification:

Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:

1. Membrane proteins are fractionated by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
3. Protein containing fractions of the best purification are subjected to second purification step

## Product Details

through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

## Target Details

Target:	CD13 (ANPEP)
Alternative Name:	ANPEP ( <a href="#">ANPEP Products</a> )
Background:	<p>Broad specificity aminopeptidase. Plays a role in the final digestion of peptides generated from hydrolysis of proteins by gastric and pancreatic proteases. May play a critical role in the pathogenesis of cholesterol gallstone disease. May be involved in the metabolism of regulatory peptides of diverse cell types, responsible for the processing of peptide hormones, such as angiotensin III and IV, neuropeptides, and chemokines. Found to cleave antigen peptides bound to major histocompatibility complex class II molecules of presenting cells and to degrade neurotransmitters at synaptic junctions. Is also implicated as a regulator of IL-8 bioavailability in the endometrium, and therefore may contribute to the regulation of angiogenesis. Is used as a marker for acute myeloid leukemia and plays a role in tumor invasion. In case of human coronavirus 229E (HCoV-229E) infection, serves as receptor for HCoV-229E spike glycoprotein. Mediates as well human cytomegalovirus (HCMV) infection. {ECO:0000269 PubMed:10605003, ECO:0000269 PubMed:10676659, ECO:0000269 PubMed:11384645, ECO:0000269 PubMed:12473585, ECO:0000269 PubMed:9056417}, (Microbial infection) Acts as a receptor for human coronavirus 229E/HCoV-229E. {ECO:0000269 PubMed:12551991, ECO:0000269 PubMed:1350662}.</p>
Molecular Weight:	110.6 kDa Including tag.
UniProt:	<a href="#">P15144</a>
Pathways:	<a href="#">Peptide Hormone Metabolism, Regulation of Systemic Arterial Blood Pressure by Hormones</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a
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## Application Details

guarantee though.

Comment: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

## Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

## Images



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process